allowed by the WNKU 10 mV/m contour. The lowest limit occurs at 179.9° and is 0.490 kW.

The rate of change for the curve in Figure 5 is less than 0.2 dB per degree from 173.2 to 180.3 degrees. At 173.2 degrees, the ERP limit is 0.540 kW, and at 180.3 degrees, the ERP limit is 0.494 kW. For the angles immediately outside these critical angles, the 0.2 dB per degree rate of change limits the ERP for the proposed Reading station. (The rate of change limit is not considered in Figure 5.)

For WLHS, the same basic process is used, but the terrain effects are more pronounced. Radials on either side of the direct bearing toward the proposed Reading station are investigated in detail. Like WFPL, WLHS does not use a directional antenna. Only the WLHS F(50,50) 1 mV/m contour is critical, as will be shown later.

The effective antenna heights for WLHS are given in Table 19. The effective antenna heights for the proposed Reading station are given in Table 20. The 1 mV/m contour is calculated using the F(50,50) curves, while the 100 mV/m undesired contour is calculated using the F(50,10) curves. For distances below those given in the F(50,10) curves, the F(50,50) curves are used. For distances below 1.61 km, the TVFMFS code uses the free space formula.

The results are given in Table 21. As can be seen in Table 21, the proposed Reading limits vary as a function of bearing to WLHS. The table shows the limits on the proposed station's 100 mV/m contour because of the WLHS 1 mV/m contour.

The ERP data in Table 21 is plotted in Figure 3 as a function of bearing from the proposed Reading station using a cubic spline interpolation for the twenty-three radials between 301.4 and 68.5 degrees that are given in Table 21. Figure 3 shows the maximum proposed station ERP in kilowatts allowed by the WLHS 1 mV/m contour. The lowest limit occurs at 358.6° and is

0.070 kW. This is also the absolute minimum ERP for the proposed station.

The rate of change for the curve in Figure 3 is less than 0.2 dB per degree from 308.3 to 65.0 degrees. At 308.3 degrees, the ERP limit is 0.143 kW, and at 65.0 degrees, the ERP limit is 0.320 kW. For the angles immediately outside these critical angles, the 0.2 dB per degree rate of change limits the ERP for the proposed station. (The rate of change limit is not considered in Figure 3.)

The other significant contours are analyzed in detail in Tables 22 through 33. Table 22 gives the direct bearing and height parameters used in the analysis. For each station, the terrain in the direction of the proposed Reading station is calculated using the NGDC 30-second database. The terrain values and resulting effective height values are shown in Tables 23 through 31.

The last two columns in Table 22 give the direct bearing from the proposed Reading station and the proposed Reading station effective height along that bearing. The bearing from the proposed Reading station is taken from Table 9. The proposed Reading station effective height along each bearing is taken from Table 4.

Table 32 shows that the previously established ERP limits for the proposed Reading station will not cause harmful interference to any listed station's F(50,50) 1 mV/m contour. Table 33 shows the previously established limits for the proposed Reading station F(50,50) 1 mV/m contour will not receive harmful interference from any of the stations shown. The undesired dBu values in Tables 32 and 33 are taken from FCC §73.509(a). The contours are based on the F(50,50) and F(50,10) curves in FCC §73.333.

A summary of the interference study results is given in Table 5. This table gives the critical angles for all

transitions in the allowed limits, along with the cardinal radials and the bearings to all stations considered above.

The pertinent contours for the critical co- and adjacent channel stations WLHS, WOBO, WNKU, and WFPL are plotted in Figure 9 using the tabular results developed above. Inspection of the data in Tables 32 and 33 suggests the possibility that the WHSS contours could also be critical since they have the smallest margin of any of the other stations. These contours are also plotted in Figure 9. In no case will the proposed station cause or receive harmful interference.

XII. TV Channel 6 Predicted Interference

This section shows that there is no predicted TV Channel 6 interference area due to the proposed Reading station. In accordance with FCC §73.525(a)(1) the radius of TV Channel 6 protection for NCE-FM Channel 207 is a distance of 196 km (121.2 miles). A list of the Channel 6 TV licenses within 196 km is given in Table 9. The three stations to be considered are WSYX in Columbus, Ohio, a WSYX application, and WRTV in Indianapolis, Indiana. The three Low Power Television Stations, W06BC, W06AY, and W06BK, are considered to be secondary service and do not receive protection from NCE FM Broadcast Stations.

The WSYX application is for an increase in HAAT at a location slightly closer to the proposed Reading station, so protection to the WSYX application also provides protection to the current WSYX license.

For the WSYX application, the effective antenna heights are given in Table 34. The effective antenna heights for the proposed Reading station are given in Table 35. The predicted interference area includes only the area within the TV Channel 6 Grade B (47 dBu) contour. Table 36 shows the distance and bearing to the WSYX application's 47 dBu contour both from WSYX and from the proposed Reading station.

The 47 dBu contour is calculated using the F(50,50) curves given in Figure 9 of FCC §73.699 as calculated using the FCC code TVFMFS. The maximum allowed field strength from the proposed Reading station that can intersect the WSYX application's 47 dBu contour without causing harmful interference is found by adding the TV Channel 6 field strength (47dBu) to the undesired-to-desired (U/D) signal ratio for Channel 207 from Figure 1 of FCC §73.599. The resulting value is 67.4 dBu. The 67.4 dBu undesired contour is calculated using the F(50,10) curves given in Figure 1a of FCC §73.333 as calculated using the FCC code TVFMFS. For distances below those given in the F(50,10) curves, the F(50,50) curves in Figure 1 are used.

The results are given in Table 36. As can be seen from Table 36, the 67.4 dBu contour from the proposed Reading station does not intersect the 47 dBu contour from the WSYX application, so there is no TV Channel 6 predicted interference area from the proposed Reading station to either the WSYX application or to WSYX.

A similar result is obtained for WRTV. For WRTV, the effective antenna heights are given in Table 37. The effective antenna heights for the proposed Reading station are given in Table 35. Table 38 shows the distance and bearing to the WRTV 47 dBu contour both from WRTV and from the proposed station. Table 38 also shows the distance to the proposed Reading station's 67.4 dBu contour. As can be seen from Table 38, the 67.4 dBu contour from the proposed Reading station does not intersect the 47 dBu contour from WRTV, so there is no TV Channel 6 predicted interference area from the proposed Reading station to WRTV.

The 47 dBu contours for WSYX/APP and WRTV, together with the 67.4 dBu contours for the proposed Reading station, are plotted in Figure 9.

XIII. Environmental Impact

The environmental impact of the proposed Reading station has been evaluated under FCC Rules and Regulations §1.1307. The location of the proposed facility is not in an officially designated wilderness area or wildlife preserve. The proposed facility will have no known impact on districts, sites, buildings, structures or objects significant in American history, architecture, archeology or culture, that are listed in or eligible for listing in the National Register of Historic Places.

The impact of the proposed Reading station on the exposure of humans to radiofrequency radiation is considered in the following subsection. Based on these results the proposed station is excluded from environmental processing.

A. RFR Compliance

This section evaluates the proposed Reading station for compliance with FCC-specified guidelines for human exposure to radiofrequency radiation. The evaluation is in accordance with FCC §1.1307(b) and OST Bulletin No. 65 (October 1985).

The proposed tower base is at or above the level of the surrounding terrain. The current ANSI radiofrequency protection guide (RFPG) for FM Broadcast is 1.0 mW/cm^2. For the proposed station, the center of radiation is at 57.77 m (189.5') AGL. Using circular polarization and assuming the maximum radiation of 1.50 kW in both the horizontal and vertical, equation (4) on page 8 of OST No. 65 gives a worst case upper limit of

$$S = \frac{(2.56)(1.64)(3000)(1000\ mW/W)}{4\pi\ (5{,}777\ cm)^2}$$

$$S = 0.03\ mW/cm^2$$

or 3 percent of the RFPG. The proposed Reading station is therefore in compliance with ANSI recommendations.

Occupational exposure will be controlled by scheduling work in close proximity to radiating elements when the transmitter is operating at reduced power or is shut down.

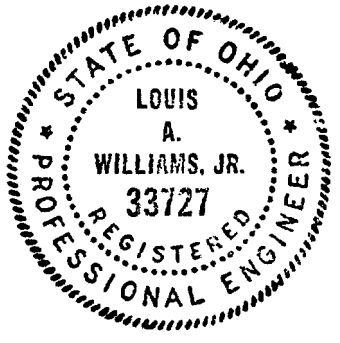
XIV. Certification

Louis A. Williams, Jr. certifies that he is a consulting engineer doing business since 1970 as Louis A. Williams, Jr. and Associates with offices at 2092 Arrowood Place, Cincinnati, Ohio 45231. He holds a degree of Bachelor of Science in Humanities and Engineering from the Massachusetts Institute of Technology. He is a licensed Professional Engineer in Ohio (#33727) and Kentucky (#7374) and holds a General Radiotelephone license (PG-19-19343).

The foregoing report entitled "Engineering Exhibit Supporting the Application of the President and Board of Trustees of The Miami University, Oxford, Ohio for a New Noncommercial FM Broadcast Station in Reading, Ohio" was prepared by him personally or under his supervision and is true and accurate to the best of his belief and knowledge.

Louis A. Williams, Jr., P.E.

Date: April 6, 1989



Original stamped in purple.

FIGURE 1

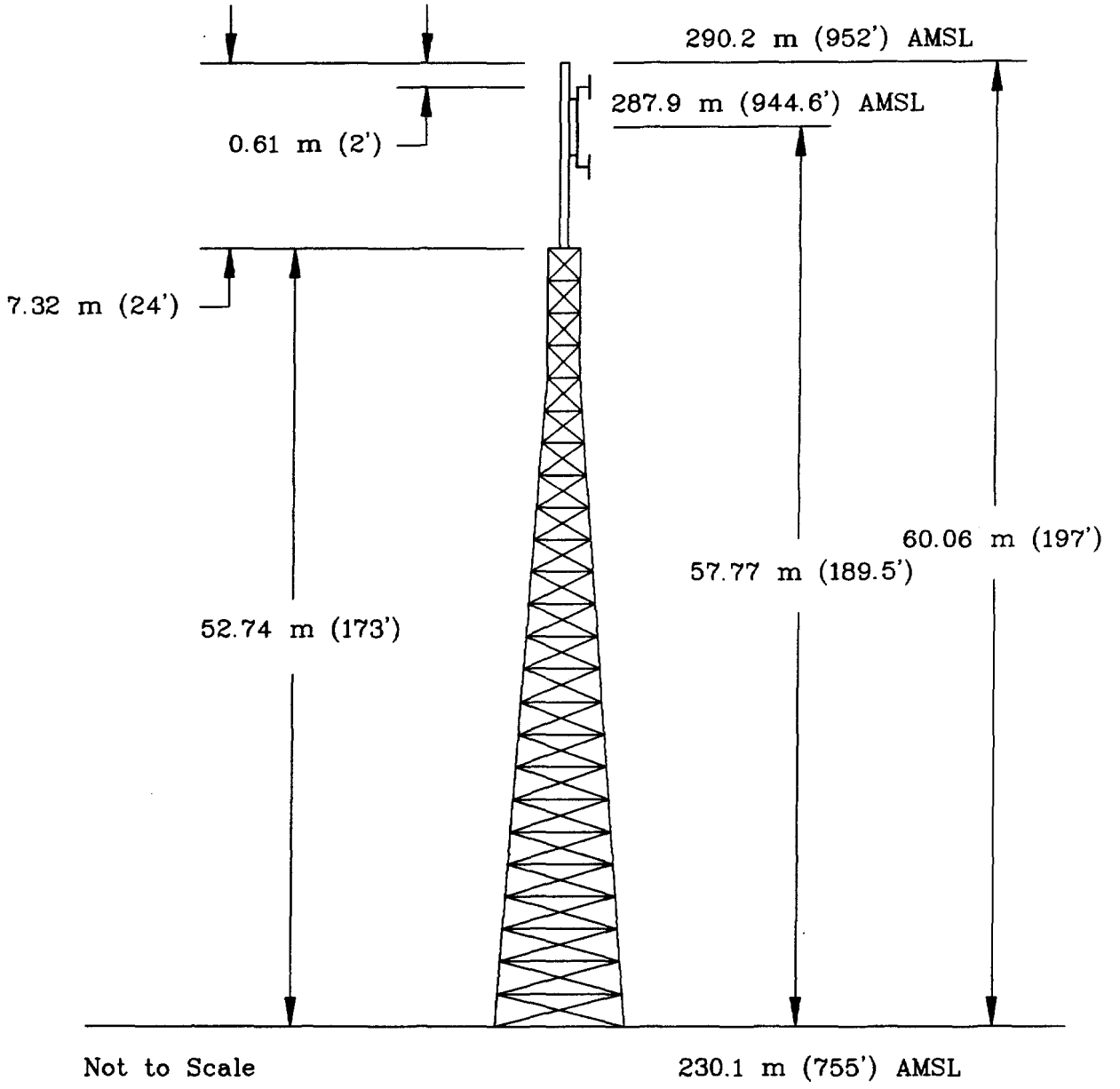
AT

END OF EXHIBIT

FIGURE 2

VERTICAL PLAN SKETCH OF ANTENNA
Proposed Reading, Ohio

Channel 207 1.50 kW ERP 72 m AAT



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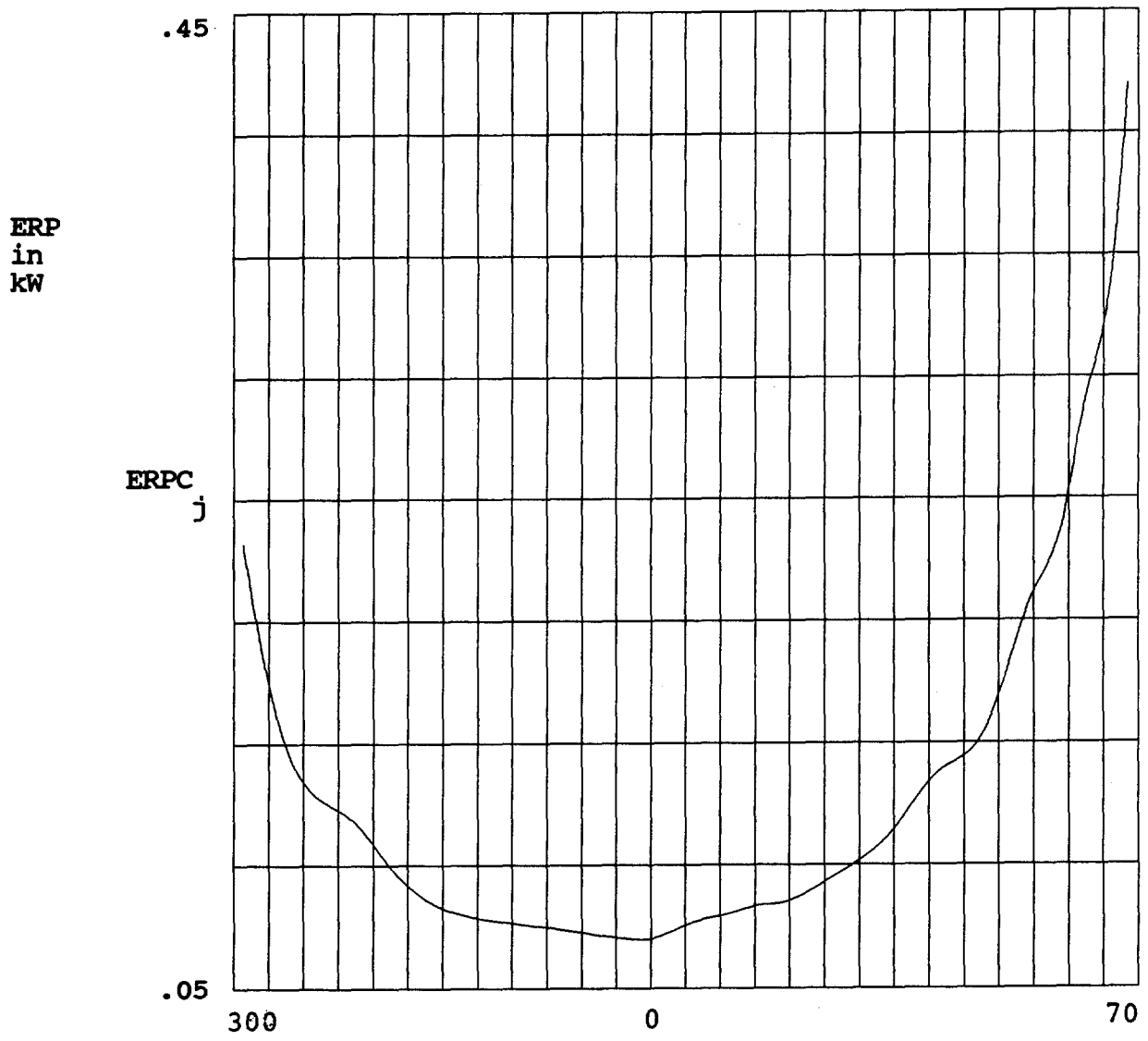
March 1989

FIGURE 3

Maximum Allowed ERP toward WLHS
(excluding the 2 dB per 10 degree rate of change limit)



Louis A. Williams, Jr. and Associates
March 1989

FIGURE 4

Maximum Allowed ERP toward WOBO
(excluding the 2 dB per 10 degree rate of change limit)

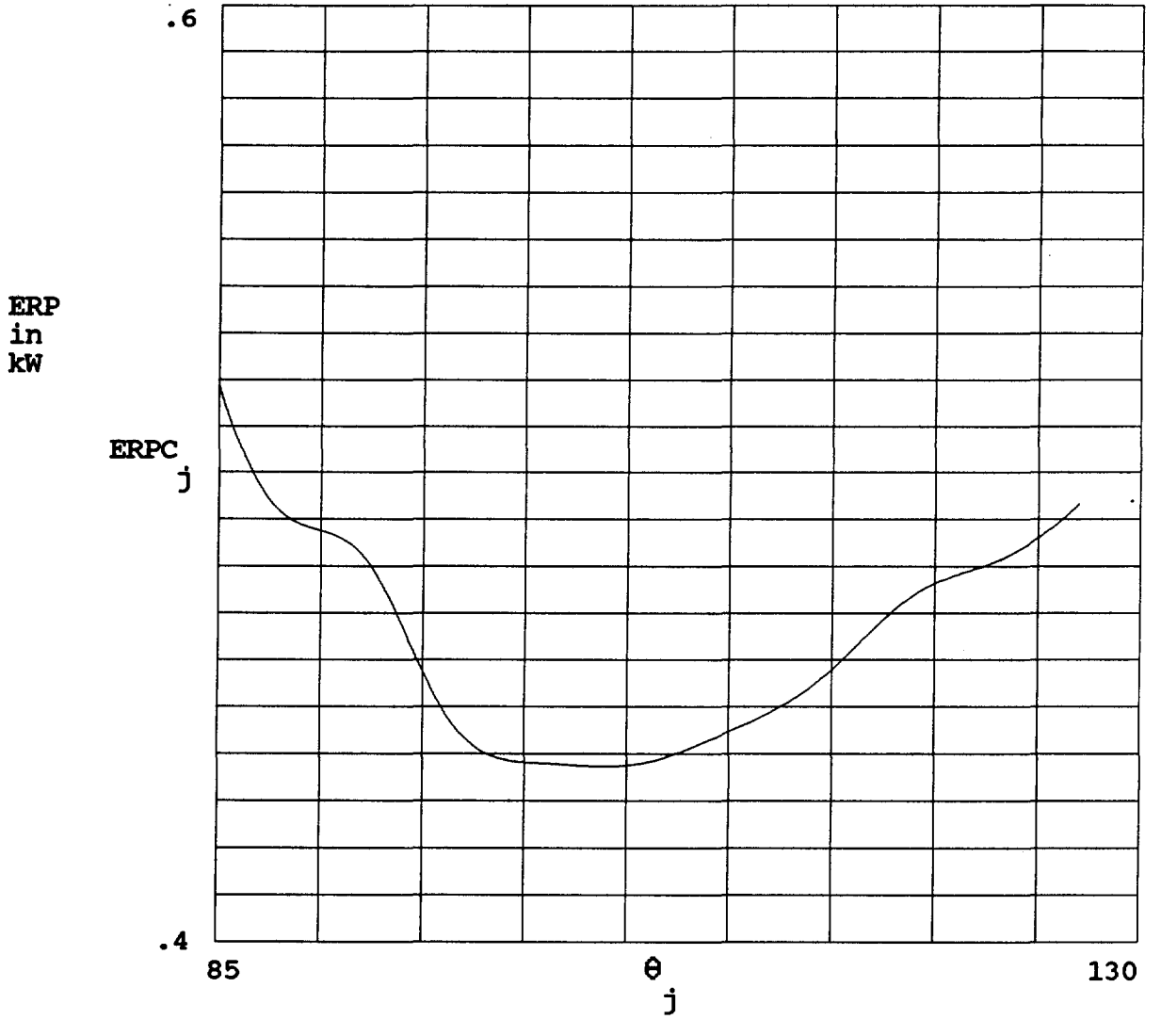


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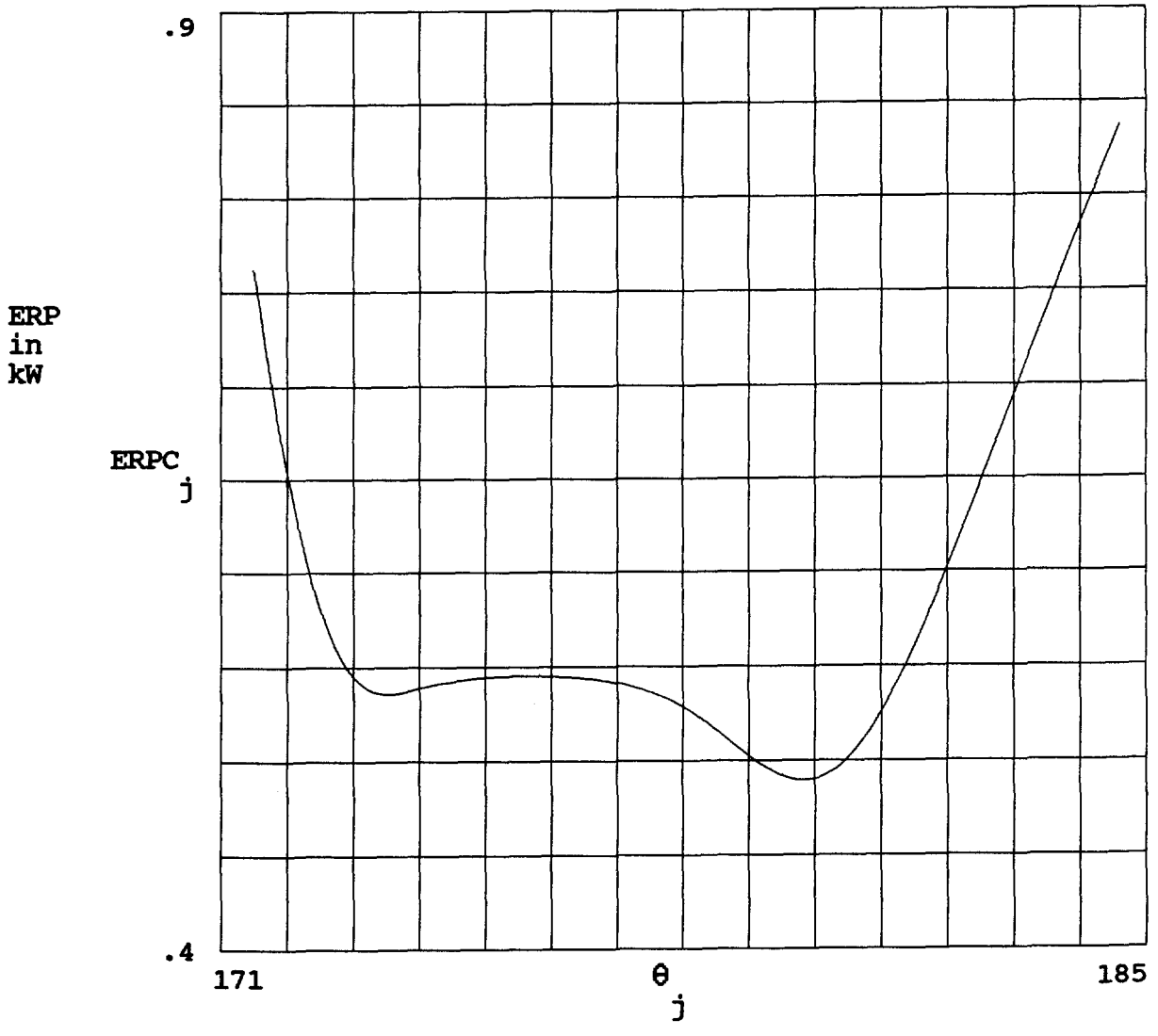
FIGURE 5

Maximum Allowed ERP toward WNKU
(excluding the 2 dB per 10 degree rate of change limit)



Bearing from Proposed Site in degrees True

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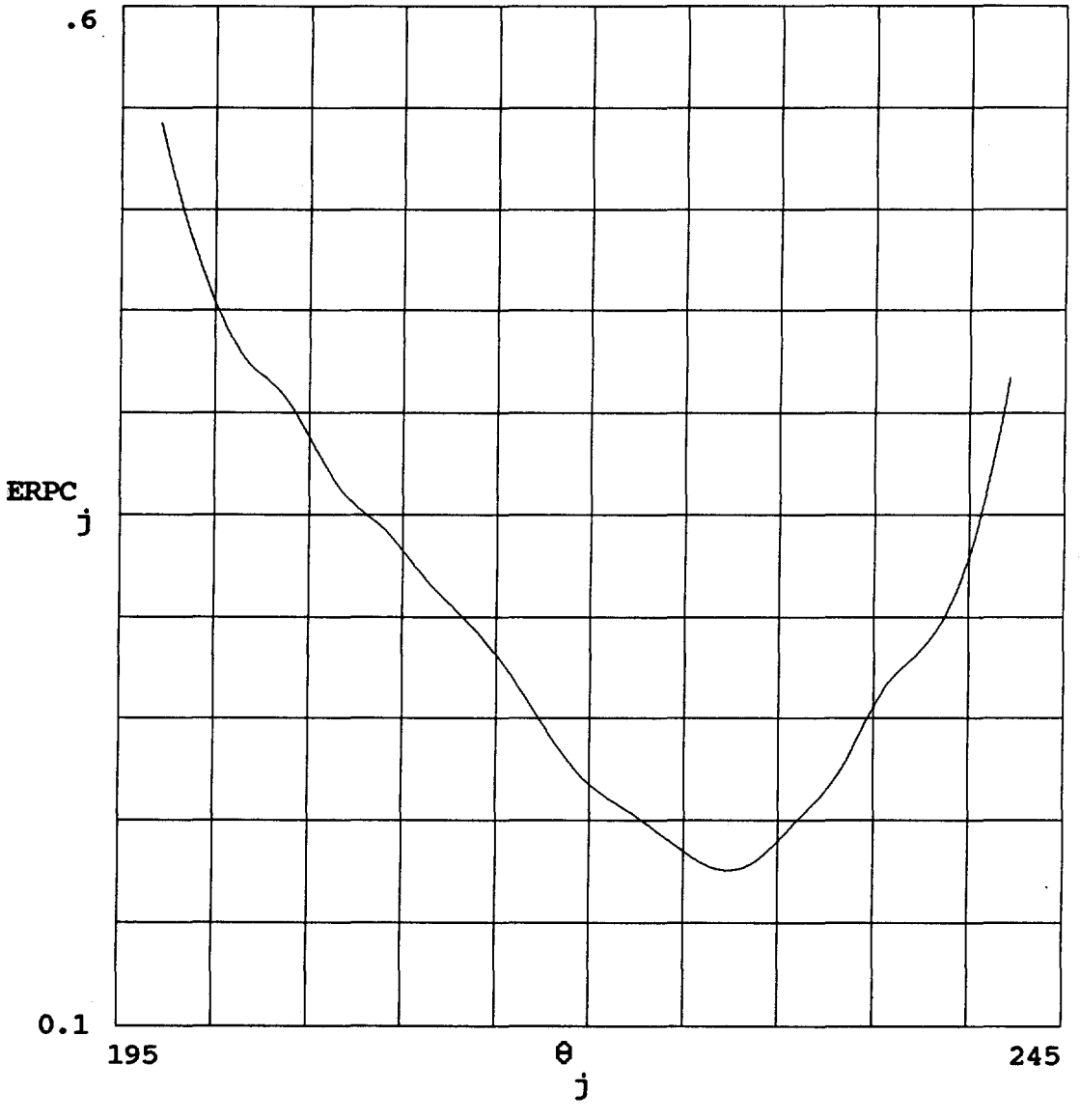
FIGURE 6

Maximum Allowed ERP toward WFPL
(excluding the 2 dB per 10 degree rate of change limit)



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March 1989

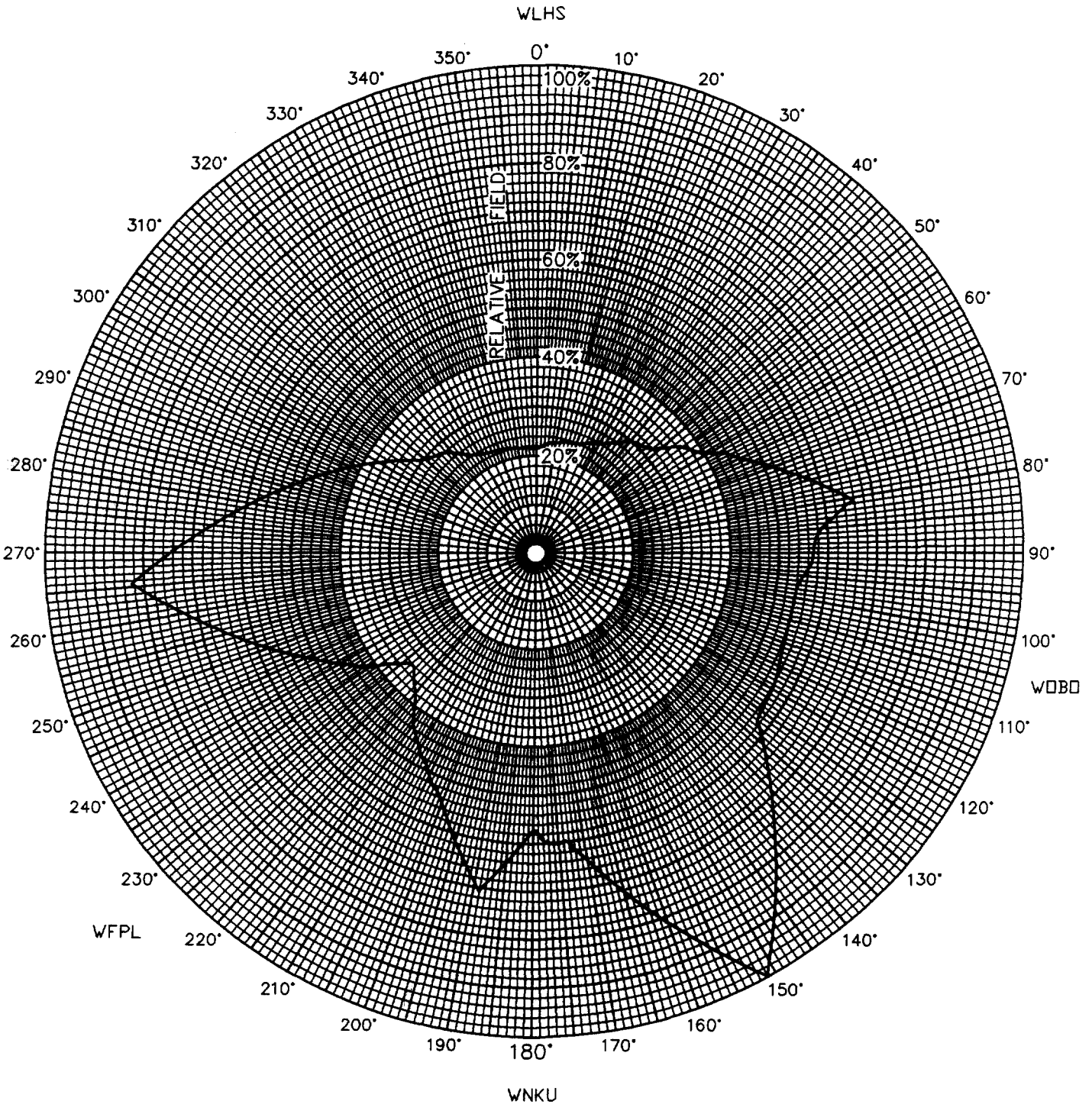


FIGURE 7
PROPOSED READING AZIMUTH PATTERN
Channel 207
Louis A. Williams, Jr. and Associates
March 1989

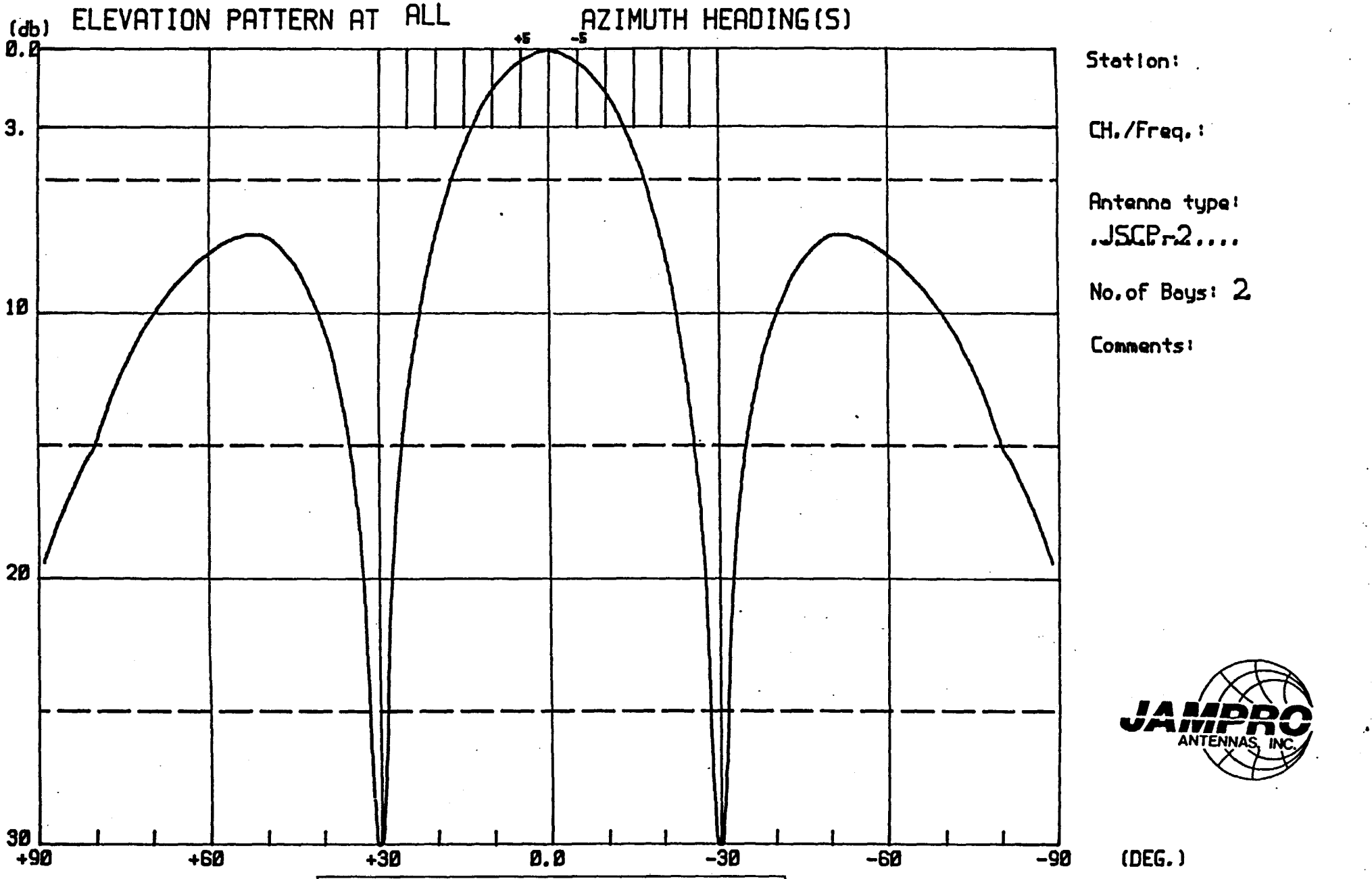
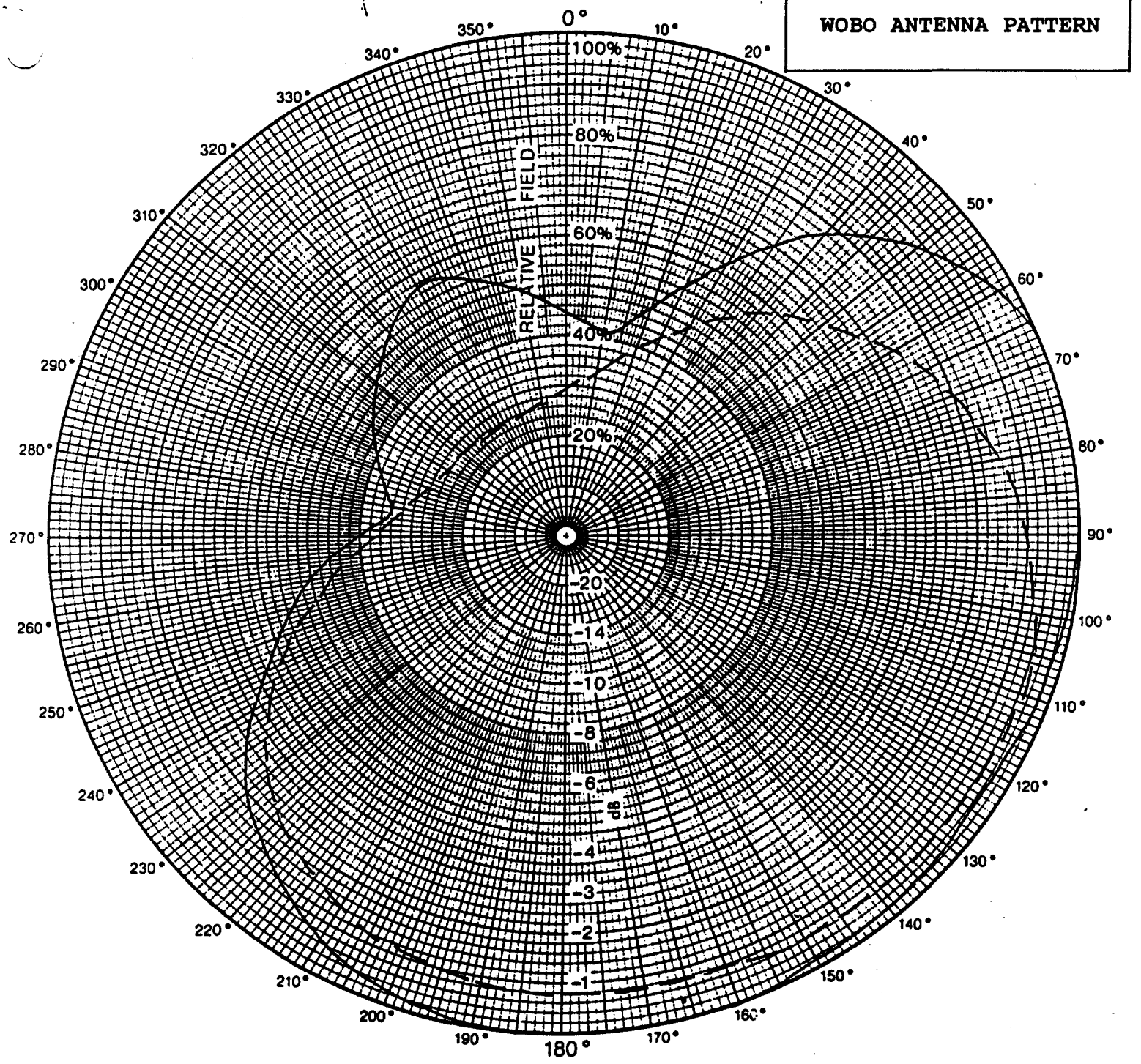


FIGURE 8

JAMPRO JSCP-2 ELEVATION PATTERN

FIGURE 10

WOBO ANTENNA PATTERN



Azimuth pattern

Customer WOBO-FM Type Number JSCP-3 R (DA)

Date 9-28-87 Frequency 88.7 MHz. Major Lobe Gain 2.73 RMS Gain 1.5

Notes:

JAMPRO ANTENNAS, INC.

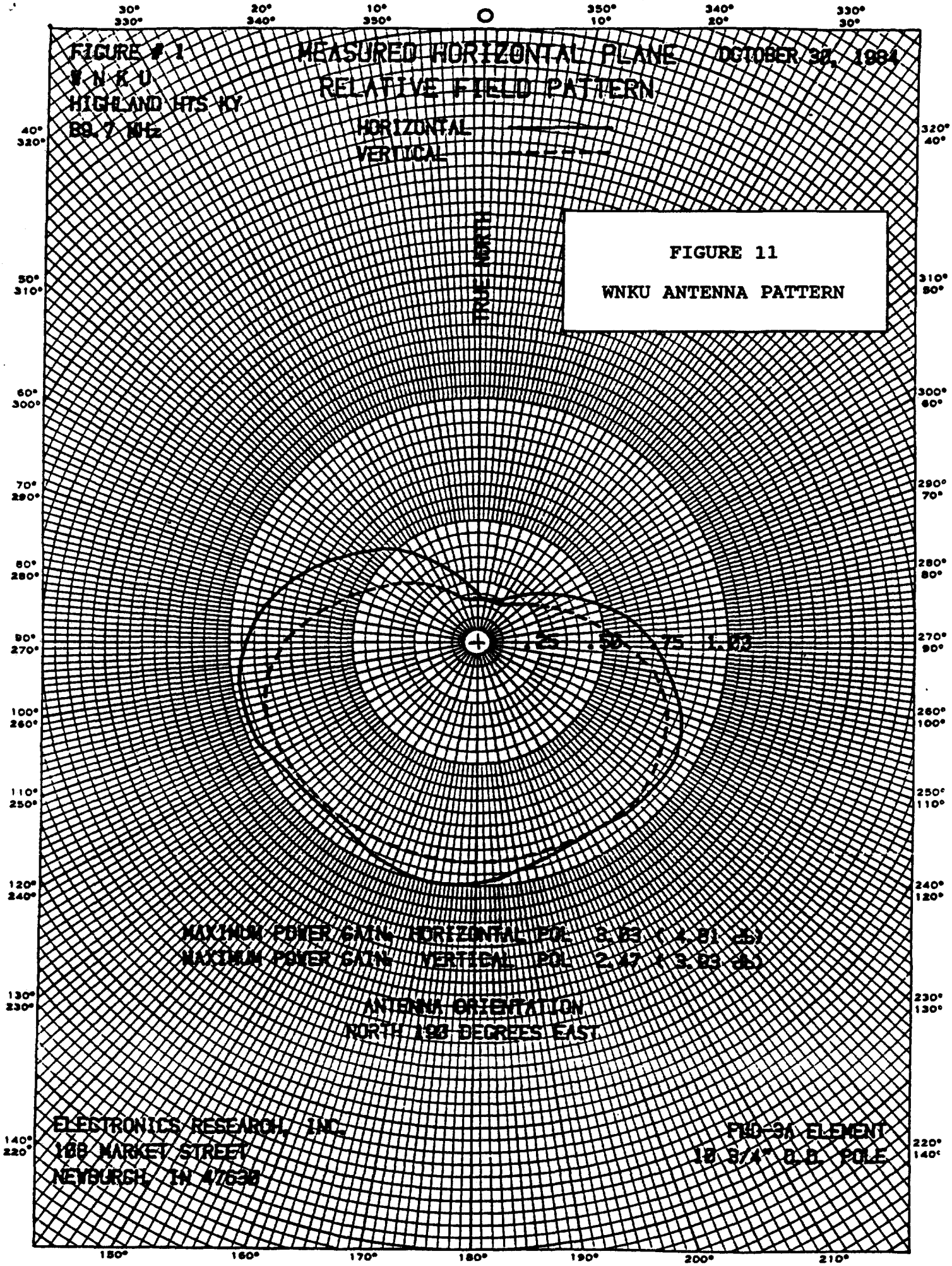


FIGURE # 1
W N K U
HIGHLAND HTS KY
89.7 MHz
MEASURED HORIZONTAL PLANE
RELATIVE FIELD PATTERN
OCTOBER 30, 1984
HORIZONTAL
VERTICAL
FIGURE 11
WNKU ANTENNA PATTERN
.25
.50
.75
1.00
MAXIMUM POWER GAIN, HORIZONTAL POL. 3.83 (4.81 dB)
MAXIMUM POWER GAIN, VERTICAL POL. 2.47 (3.93 dB)
ANTENNA ORIENTATION
NORTH 198 DEGREES EAST
ELECTRONICS RESEARCH, INC.
188 MARKET STREET
NEWBURGH, IN 47630
FM-3A ELEMENT
10 3/4" O.D. POLE
DIETZGEN CORPORATION
NO. 341-P DIETZGEN GRAPH PAPER
POLAR CO-ORDINATE

TABLE 1

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
0	0.2157	36.40	-11.55
1	0.2168	36.58	-11.51
2	0.2183	36.84	-11.45
3	0.2202	37.16	-11.37
4	0.2221	37.48	-11.30
5	0.2240	37.80	-11.22
6	0.2257	38.09	-11.16
7	0.2270	38.31	-11.11
8	0.2280	38.47	-11.07
9	0.2288	38.61	-11.04
10	0.2296	38.74	-11.01
11	0.2305	38.90	-10.97
12	0.2317	39.10	-10.93
13	0.2331	39.34	-10.88
14	0.2343	39.54	-10.83
15	0.2352	39.69	-10.80
16	0.2358	39.79	-10.78
17	0.2362	39.86	-10.76
18	0.2367	39.94	-10.74
19	0.2374	40.06	-10.72
20	0.2384	40.23	-10.68
21	0.2399	40.48	-10.63
22	0.2418	40.80	-10.56
23	0.2439	41.16	-10.48
24	0.2462	41.55	-10.40
25	0.2486	41.95	-10.32
26	0.2510	42.36	-10.23
27	0.2533	42.74	-10.15
28	0.2556	43.13	-10.08
29	0.2578	43.50	-10.00
30	0.2602	43.91	-9.92
31	0.2627	44.33	-9.84
32	0.2655	44.80	-9.75
33	0.2686	45.33	-9.65
34	0.2721	45.92	-9.53
35	0.2762	46.61	-9.40
36	0.2806	47.35	-9.27
37	0.2854	48.16	-9.12
38	0.2901	48.95	-8.98
39	0.2946	49.71	-8.84
40	0.2986	50.39	-8.73
41	0.3021	50.98	-8.62
42	0.3047	51.42	-8.55
43	0.3066	51.74	-8.50
44	0.3081	51.99	-8.45
45	0.3099	52.30	-8.40
46	0.3124	52.72	-8.33
47	0.3160	53.32	-8.23
48	0.3213	54.22	-8.09
49	0.3281	55.37	-7.91

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
50	0.3360	56.70	-7.70
51	0.3445	58.13	-7.48
52	0.3531	59.59	-7.27
53	0.3614	60.99	-7.07
54	0.3689	62.25	-6.89
55	0.3751	63.30	-6.74
56	0.3801	64.14	-6.63
57	0.3848	64.93	-6.52
58	0.3905	65.90	-6.40
59	0.3984	67.23	-6.22
60	0.4094	69.09	-5.98
61	0.4230	71.38	-5.70
62	0.4357	73.52	5.44
63	0.4450	75.09	-5.26
64	0.4525	76.36	-5.12
65	0.4616	77.89	-4.94
66	0.4724	79.72	-4.74
67	0.4834	81.57	-4.54
68	0.4946	83.46	-4.34
69	0.5061	85.40	-4.14
70	0.5179	87.40	-3.94
71	0.5300	89.44	-3.74
72	0.5423	91.51	-3.54
73	0.5550	93.66	-3.34
74	0.5679	95.83	-3.14
75	0.5811	98.06	-2.94
76	0.5947	100.36	-2.74
77	0.6085	102.68	-2.54
78	0.6227	105.08	-2.34
79	0.6372	107.53	-2.14
80	0.6520	110.02	-1.94
81	0.6439	108.66	-2.05
82	0.6292	106.18	-2.25
83	0.6149	103.76	-2.45
84	0.6009	101.40	-2.65
85	0.5872	99.09	-2.85
86	0.5802	97.91	-2.96
87	0.5750	97.03	-3.03
88	0.5718	96.49	-3.08
89	0.5702	96.22	-3.11
90	0.5694	96.09	-3.12
91	0.5684	95.92	-3.13
92	0.5665	95.60	-3.16
93	0.5626	94.94	-3.22
94	0.5573	94.04	-3.31
95	0.5516	93.08	-3.40
96	0.5466	92.24	-3.47
97	0.5431	91.65	-3.53
98	0.5411	91.31	-3.56
99	0.5401	91.14	-3.58
100	0.5398	91.09	-3.58
101	0.5396	91.06	-3.59

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
102	0.5395	91.04	-3.59
103	0.5393	91.01	-3.59
104	0.5392	90.99	-3.59
105	0.5393	91.01	-3.59
106	0.5398	91.09	-3.58
107	0.5405	91.21	-3.57
108	0.5415	91.38	-3.56
109	0.5426	91.56	-3.54
110	0.5438	91.77	-3.52
111	0.5450	91.97	-3.50
112	0.5463	92.19	-3.48
113	0.5478	92.44	-3.46
114	0.5496	92.74	-3.43
115	0.5518	93.12	-3.39
116	0.5543	93.54	-3.35
117	0.5569	93.98	-3.31
118	0.5594	94.40	-3.27
119	0.5614	94.74	-3.24
120	0.5628	94.97	-3.22
121	0.5638	95.14	-3.21
122	0.5647	95.29	-3.19
123	0.5656	95.44	-3.18
124	0.5669	95.66	-3.16
125	0.5685	95.93	-3.13
126	0.5704	96.25	-3.10
127	0.5727	96.64	-3.07
128	0.5860	98.89	-2.87
129	0.5997	101.20	-2.67
130	0.6137	103.56	-2.47
131	0.6280	105.97	-2.27
132	0.6426	108.44	-2.07
133	0.6575	110.95	-1.87
134	0.6729	113.55	-1.67
135	0.6885	116.18	-1.47
136	0.7046	118.90	-1.27
137	0.7210	121.67	-1.07
138	0.7378	124.50	-0.87
139	0.7550	127.41	-0.67
140	0.7726	130.38	-0.47
141	0.7905	133.40	-0.27
142	0.8090	136.52	-0.07
143	0.8278	139.69	0.13
144	0.8471	142.95	0.33
145	0.8668	146.27	0.53
146	0.8870	149.68	0.73
147	0.9077	153.17	0.93
148	0.9288	156.73	1.13
149	0.9504	160.38	1.33
150	0.9726	164.13	1.53
151	0.9992	168.61	1.77
152	0.9765	164.78	1.57
153	0.9543	161.04	1.37

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
154	0.9325	157.36	1.17
155	0.9113	153.78	0.97
156	0.8906	150.29	0.77
157	0.8703	146.86	0.57
158	0.8505	143.52	0.37
159	0.8311	140.25	0.17
160	0.8122	137.06	-0.03
161	0.7937	133.94	-0.23
162	0.7757	130.90	-0.43
163	0.7580	127.91	-0.63
164	0.7407	124.99	-0.83
165	0.7239	122.16	-1.03
166	0.7074	119.37	-1.23
167	0.6913	116.66	-1.43
168	0.6756	114.01	-1.63
169	0.6602	111.41	-1.83
170	0.6452	108.88	-2.03
171	0.6305	106.40	-2.23
172	0.6161	103.97	-2.43
173	0.6021	101.60	-2.63
174	0.5986	101.01	-2.68
175	0.6017	101.54	-2.64
176	0.6020	101.59	-2.64
177	0.6000	101.25	-2.66
178	0.5927	100.02	-2.77
179	0.5781	97.55	-2.99
180	0.5710	96.36	-3.09
181	0.5841	98.57	-2.90
182	0.5977	100.86	-2.70
183	0.6116	103.21	-2.50
184	0.6259	105.62	-2.30
185	0.6404	108.07	-2.10
186	0.6554	110.60	-1.90
187	0.6706	113.16	-1.70
188	0.6862	115.80	-1.50
189	0.7079	119.46	-1.23
190	0.6918	116.74	-1.43
191	0.6760	114.07	-1.63
192	0.6606	111.48	-1.83
193	0.6456	108.94	-2.03
194	0.6309	106.46	-2.23
195	0.6165	104.03	-2.43
196	0.6025	101.67	-2.63
197	0.5888	99.36	-2.83
198	0.5754	97.10	-3.03
199	0.5623	94.89	-3.23
200	0.5495	92.73	-3.43
201	0.5376	90.72	-3.62
202	0.5297	89.39	-3.75
203	0.5250	88.59	-3.82
204	0.5181	87.43	-3.94
205	0.5081	85.74	-4.11

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
206	0.4975	83.95	-4.29
207	0.4886	82.45	-4.45
208	0.4828	81.47	-4.55
209	0.4776	80.59	-4.65
210	0.4702	79.35	-4.78
211	0.4620	77.96	-4.93
212	0.4548	76.75	-5.07
213	0.4481	75.62	-5.20
214	0.4410	74.42	-5.34
215	0.4326	73.00	-5.51
216	0.4223	71.26	-5.72
217	0.4108	69.32	-5.95
218	0.3992	67.36	-6.20
219	0.3886	65.58	-6.44
220	0.3803	64.18	-6.62
221	0.3743	63.16	-6.76
222	0.3690	62.27	-6.89
223	0.3633	61.31	-7.02
224	0.3570	60.24	-7.17
225	0.3505	59.15	-7.33
226	0.3450	58.22	-7.47
227	0.3419	57.70	-7.55
228	0.3425	57.80	-7.53
229	0.3472	58.59	-7.42
230	0.3555	59.99	-7.21
231	0.3647	61.54	-6.99
232	0.3730	62.94	-6.79
233	0.3830	64.63	-6.56
234	0.3972	67.03	-6.25
235	0.4126	69.63	-5.92
236	0.4239	71.53	-5.68
237	0.4310	72.73	-5.54
238	0.4386	74.01	-5.39
239	0.4488	75.73	-5.19
240	0.4593	77.51	-4.99
241	0.4700	79.31	-4.79
242	0.4809	81.15	-4.59
243	0.4921	83.04	-4.39
244	0.5036	84.98	-4.19
245	0.5153	86.96	-3.99
246	0.5273	88.98	-3.79
247	0.5396	91.06	-3.59
248	0.5522	93.18	-3.39
249	0.5650	95.34	-3.19
250	0.5782	97.57	-2.99
251	0.5917	99.85	-2.79
252	0.6054	102.16	-2.59
253	0.6195	104.54	-2.39
254	0.6340	106.99	-2.19
255	0.6487	109.47	-1.99
256	0.6638	112.02	-1.79
257	0.6793	114.63	-1.59

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
258	0.6951	117.30	-1.39
259	0.7113	120.03	-1.19
260	0.7279	122.83	-0.99
261	0.7448	125.68	-0.79
262	0.7622	128.62	-0.59
263	0.7800	131.62	-0.39
264	0.7981	134.68	-0.19
265	0.8167	137.82	0.01
266	0.8174	137.93	0.02
267	0.7988	134.79	-0.18
268	0.7806	131.72	-0.38
269	0.7628	128.73	-0.58
270	0.7455	125.80	-0.78
271	0.7285	122.93	-0.98
272	0.7119	120.13	-1.18
273	0.6957	117.40	-1.38
274	0.6799	114.73	-1.58
275	0.6644	112.11	-1.78
276	0.6493	109.56	-1.98
277	0.6345	107.07	-2.18
278	0.6200	104.63	-2.38
279	0.6059	102.25	-2.58
280	0.5921	99.92	-2.78
281	0.5787	97.65	-2.98
282	0.5655	95.43	-3.18
283	0.5526	93.25	-3.38
284	0.5400	91.13	-3.58
285	0.5277	89.06	-3.78
286	0.5157	87.03	-3.98
287	0.5040	85.05	-4.18
288	0.4925	83.11	-4.38
289	0.4813	81.22	-4.58
290	0.4704	79.37	-4.78
291	0.4596	77.56	-4.98
292	0.4492	75.80	-5.18
293	0.4390	74.07	-5.38
294	0.4290	72.39	-5.58
295	0.4192	70.74	-5.78
296	0.4097	69.13	-5.98
297	0.4003	67.56	-6.18
298	0.3912	66.02	-6.38
299	0.3823	64.52	-6.58
300	0.3736	63.05	-6.78
301	0.3651	61.61	-6.98
302	0.3568	60.21	-7.18
303	0.3487	58.84	-7.38
304	0.3407	57.50	-7.58
305	0.3330	56.19	-7.78
306	0.3254	54.91	-7.98
307	0.3180	53.66	-8.18
308	0.3108	52.44	-8.38
309	0.3040	51.30	-8.57

PROPOSED READING ANTENNA PATTERN HORIZONTAL POLARIZATION

Azimuth (deg.)	Relative Field	Free Space Field* (mV/m at 1 mile)	ERP (dBk)
310	0.2988	50.42	-8.72
311	0.2948	49.75	-8.84
312	0.2919	49.26	-8.92
313	0.2896	48.87	-8.99
314	0.2877	48.55	-9.05
315	0.2859	48.25	-9.10
316	0.2838	47.89	-9.17
317	0.2810	47.42	-9.25
318	0.2775	46.83	-9.36
319	0.2734	46.14	-9.49
320	0.2689	45.38	-9.64
321	0.2642	44.58	-9.79
322	0.2594	43.77	-9.95
323	0.2548	43.00	-10.10
324	0.2506	42.29	-10.25
325	0.2468	41.65	-10.38
326	0.2436	41.11	-10.49
327	0.2407	40.62	-10.60
328	0.2382	40.20	-10.69
329	0.2361	39.84	-10.77
330	0.2343	39.54	-10.83
331	0.2328	39.28	-10.89
332	0.2314	39.05	-10.94
333	0.2303	38.86	-10.98
334	0.2293	38.69	-11.02
335	0.2284	38.54	-11.05
336	0.2277	38.42	-11.08
337	0.2270	38.31	-11.11
338	0.2264	38.20	-11.13
339	0.2258	38.10	-11.15
340	0.2253	38.02	-11.17
341	0.2248	37.93	-11.19
342	0.2244	37.87	-11.21
343	0.2239	37.78	-11.23
344	0.2234	37.70	-11.25
345	0.2228	37.60	-11.27
346	0.2222	37.50	-11.29
347	0.2216	37.39	-11.32
348	0.2210	37.29	-11.34
349	0.2203	37.18	-11.37
350	0.2196	37.06	-11.39
351	0.2190	36.96	-11.42
352	0.2183	36.84	-11.45
353	0.2177	36.74	-11.47
354	0.2171	36.64	-11.49
355	0.2166	36.55	-11.51
356	0.2161	36.47	-11.53
357	0.2156	36.38	-11.55
358	0.2153	36.33	-11.57
359	0.2153	36.33	-11.57

* Based on 137.6 mV/m/kW at 1 mile.

TABLE OF FIELD STRENGTH

JSCP 2-BAY

ELEV. ANGLE	FIELD STRNGTH	ELEV. ANGLE	FIELD STRNGTH	ELEV. ANGLE	FIELD STRNGTH	ELEV. ANGLE	FIELD STRNGTH	ELEV. ANGLE	FIELD STRNGTH
90.0	.100	89.0	.108	88.0	.116	87.0	.123	86.0	.131
85.0	.139	84.0	.147	83.0	.154	82.0	.162	81.0	.170
80.0	.178	79.0	.191	78.0	.205	77.0	.219	76.0	.232
75.0	.246	74.0	.259	73.0	.272	72.0	.285	71.0	.298
70.0	.311	69.0	.322	68.0	.333	67.0	.344	66.0	.355
65.0	.365	64.0	.375	63.0	.384	62.0	.393	61.0	.400
60.0	.408	59.0	.416	58.0	.423	57.0	.430	56.0	.435
55.0	.439	54.0	.442	53.0	.444	52.0	.445	51.0	.444
50.0	.442	49.0	.435	48.0	.428	47.0	.418	46.0	.407
45.0	.395	44.0	.381	43.0	.365	42.0	.347	41.0	.328
40.0	.307	39.0	.285	38.0	.261	37.0	.235	36.0	.207
35.0	.178	34.0	.146	33.0	.112	32.0	.076	31.0	.039
30.0	.000	29.0	.040	28.0	.082	27.0	.124	26.0	.167
25.0	.211	24.0	.255	23.0	.300	22.0	.345	21.0	.390
20.0	.434	19.0	.479	18.0	.522	17.0	.566	16.0	.608
15.0	.649	14.0	.689	13.0	.728	12.0	.766	11.0	.802
10.0	.835	9.0	.864	8.0	.889	7.0	.913	6.0	.934
5.0	.952	4.0	.967	3.0	.980	2.0	.990	1.0	.996
.0	1.000	-1.0	.996	-2.0	.990	-3.0	.980	-4.0	.967
-5.0	.952	-6.0	.934	-7.0	.913	-8.0	.889	-9.0	.864
-10.0	.835	-11.0	.802	-12.0	.766	-13.0	.728	-14.0	.689
-15.0	.649	-16.0	.608	-17.0	.566	-18.0	.522	-19.0	.479
-20.0	.434	-21.0	.390	-22.0	.345	-23.0	.300	-24.0	.255
-25.0	.211	-26.0	.167	-27.0	.124	-28.0	.082	-29.0	.040
-30.0	.000	-31.0	.039	-32.0	.076	-33.0	.112	-34.0	.146
-35.0	.178	-36.0	.207	-37.0	.235	-38.0	.261	-39.0	.285
-40.0	.307	-41.0	.328	-42.0	.347	-43.0	.365	-44.0	.381
-45.0	.395	-46.0	.407	-47.0	.418	-48.0	.428	-49.0	.435
-50.0	.442	-51.0	.444	-52.0	.445	-53.0	.444	-54.0	.442
-55.0	.439	-56.0	.435	-57.0	.430	-58.0	.423	-59.0	.416
-60.0	.408	-61.0	.400	-62.0	.393	-63.0	.384	-64.0	.375
-65.0	.365	-66.0	.355	-67.0	.344	-68.0	.333	-69.0	.322
-70.0	.311	-71.0	.298	-72.0	.285	-73.0	.272	-74.0	.259
-75 0	.246	-76.0	.232	-77.0	.219	-78.0	.205	-79.0	.191
-80.0	.178	-81.0	.170	-82.0	.162	-83.0	.154	-84.0	.147
-85.0	.139	-86.0	.131	-87.0	.123	-88.0	.116	-89.0	.108
-90.0	.100								

JAMPRO ANTENNAS, INC.
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TABLE 2

JAMPRO JSCP-2 ELEVATION PATTERN